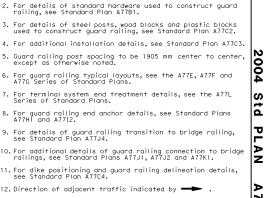
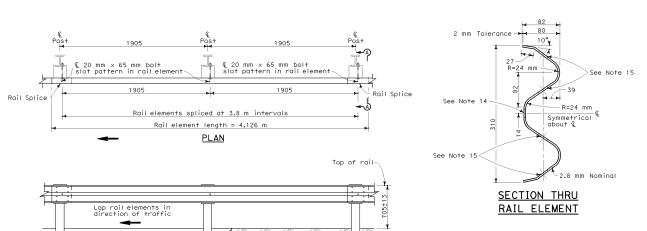
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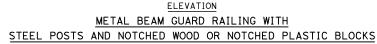
Ellis K.Hirst

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Ground line or shoulder

surfacing under rail element

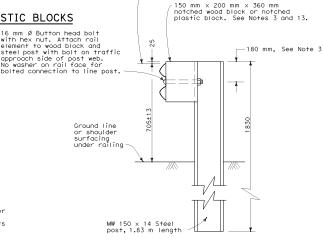


€ Rail Splice and slot for 16 mm Ø button head bolt to connect rail to post and block 0 1 20 mm x 65 mm Slot 23 mm × 29 mm Slots **ELEVATION** 

 $\sim$ 

## RAIL ELEMENT SPLICE DETAIL

- a) Connect the over lapped end of the rail elements with 16 mm Ø x 35 mm button head oval shoulder splice bolts inserted into the 23 mm x 29 mm slots and bolted together with 16 mm  $\emptyset$  x 35 mm recessed hex nuts. Recess of hex nut points toward rail element. A total of 8 bolts and nuts are to be used at each rail splice connection.
- b) The ends of the rail elements are to be overlapped in the direction of traffic (see details).
- c) Where end cap is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



Top of rail

SECTION A-A TYPICAL STEEL LINE POST INSTALLATION

## NOTES

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- 1. For details of wood post installations, see Standard Plan A77A1.
- 2. For details of standard hardware used to construct guard railing, see Standard Plan A77B1.
- 3. For details of steel posts, wood blocks and plastic blocks used to construct guard railing, see Standard Plan A77C2.
- 4. For additional installation details, see Standard Plan A77C3.

Ellio K. Lohos

get to the Caltrans web site, go to: http://www.dot.ca.go

July 1, 2004

- except as otherwise noted.
- For guard railing typical layouts, see the A77E, A77F and A77G Series of Standard Plans.
- 7. For terminal system end treatment details, see the A77L Series of Standard Plans.
- 8. For guard railing end anchor details, see Standard Plans A77H1 and A77I2.
- 9. For details of guard railing transition to bridge railing, see Standard Plan A77J4.
- 10. For additional details of guard railing connection to bridge
- For dike positioning and guard railing delineation details, see Standard Plan A77C4.
- 12. Direction of adjacent traffic indicated by
- 13. Notched face of block faces steel post.
- 14. Slotted hale for bolted connection of rail element to block and post. See "Section Thru Rail Element".
- 15. Slotted holes for splice bolts to overlap ends of rail element. See "Section Thru Rail Element".

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING STANDARD RAILING SECTION (STEEL POST WITH NOTCHED WOOD OR NOTCHED PLASTIC BLOCK)

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77A2